



SEQUENCE LISTING

<110> Hosted, Jr., Thomas J.
Horan, Ann C.

<120> Isolation of *Micromonospora carbonacea* var *africana*
pMLP1 integrase and use of integrating function for
site-specific integration into *Micromonospora*
halophitica and *Micromonospora carbonacea* chromosome

<130> IN01164K

<140> 09/855,340

<141> 2001-05-15

<150> 60/204,670

<151> 2000-05-17

<160> 16

<170> PatentIn Ver. 2.1

<210> 1

<211> 1179

<212> DNA

<213> *Micromonospora carbonacea*

<400> 1

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<210> 2

<211> 426

<212> DNA

<213> *Micromonospora carbonacea*

<400> 2

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gcccagggtc tcggcctcga cctcgacgaa gccctcgccg ccgcaggctc gcgccccggc 240
gtcaccgccg cagcgacccc aacctgggac ctggacgagg aaatcgagct ggtccgcacc 300
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 agctga 426

<210> 3
 <211> 34
 <212> DNA
 <213> *Micromonospora carbonacea*

<400> 3
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<210> 4
 <211> 241
 <212> DNA
 <213> *Micromonospora carbonacea*

<400> 4
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 acacgaaggc cccctccact cggagggggc ctccggcggt cctgagggtt cgcggtcagg 180
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 a 241

<210> 5
 <211> 243
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 <213> *Micromonospora carbonacea*

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 ttcccatcag tcaccgggca agtggatcta ctccacagca gatcaggccc cctccgaaga 180
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<210> 6
 <211> 247
 <212> DNA
 <213> *Micromonospora carbonacea*

<400> 6
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<210> 7
 <211> 255
 <212> DNA
 <213> *Micromonospora halophytica*

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aggtaagacc caggtcaggg cgggttctca cgggccctga cgcattttca ggggcatggt 180
 gggggcgcta ccgggggttg ggtgtctcac cgcgagccag catctcgatc aggcgatcga 240
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<210> 8

<211> 315

<212> DNA

<213> *Micromonospora halophytica*

<400> 8

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 gcaagtggat ctactccaca gcagatcagg cccctccga agagggggcc tgatgcgtca 180
 taggggacag gtaggggaac tcaacccccg gctccttgct cgcgtcgggt catgccgtcc 240
 gcgtaccctt ccgcgtacct ggccctctcc cgttcctcga tctcggcggc gagctgatcg 300
 cgcaggtgcg cctcc 315

<210> 9

<211> 260

<212> DNA

<213> *Micromonospora halophytica*

<400> 9

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 accccaggtg agaccaggt cagggccggg tctcaccggc cctgacgcat ttccaggggc 180
 atgggtgggg cgctaccggg ggtgggggtgt ctcaccgcga gccagcatct cgatcaggcg 240
 atcgagccgg cgctgccggg 260

<210> 10

<211> 209

<212> DNA

<213> artificial sequence

<220>

<223> pMLP1 attP region

<400> 10

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 acccggaag tggatctact ccacagcaga tcaggccccc tccgaagagg gggcctgatg 180
 cgtcataggg gacaggtagg ggaactcaa 209

<210> 11

<211> 19

<212> DNA

<213> artificial sequence

<220>

<223> primer PR144

<400> 11

tgcttcgacg ccatcargg

19

<210> 12

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> primer PR145

<220>

<221> misc_feature

<222> (7)..(7)

<223> n is inosine (I)

<400> 12

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20

<210> 13

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> primer PDH504

<400> 13

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20

<210> 14

<211> 21

<212> DNA

<213> artificial sequence

<220>

<223> primer PDH505

<400> 14

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21

<210> 15

<211> 21

<212> PRT

<213> artificial sequence

<220>

<223> amino acid sequence of open reading frame indicated in figures 4b and 4d

<400> 15

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Ala	Glu	Pro	Thr	Ala
			20	

<210> 16

<211> 21

<212> PRT

<213> artificial sequence

<220>

<223> amino acid sequence of open reading frame indicated in figures 5b and 5d

<400> 16

Arg	Gln	Arg	Arg	Leu	Asp	Arg	Leu	Ile	Glu	Met	Leu	Ala	Arg	Gly	Glu
1				5					10					15	

Thr Pro His Pro Arg
20